



## LEVELSYSTEM C A R A V A N



Remote control • Caravan

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In particular, E&P Hydraulics shall not be liable for any hardware, software, or data that is stored or used with this product, including the cost of repairing, replacing or recovering the above. E&P Hydraulics reserves the right to change parts of the device at any time without preceding or direct announcement to the client.

E&P Hydraulics reserves the right to revise the manual(s), and to make changes in the contents without obligation to notify any person or entity of the revision or change. A registration number appears on the product. Make sure that this official registration number has not been removed. It should be used whenever servicing by E&P Hydraulics or an authorized E&P Hydraulics dealer is necessary.

**Important**

This equipment has been tested and found to comply with the limits valid for this device, pursuant to EN300220, EN301489, EN60950 rules conform 868MHZ. These limits are designed to provide reasonable protection against harmful interference when this product is operated in a commercial environment. Any unauthorized changes or modifications to this device could void the user's authority to operate this equipment.

For CE-countries:

This device is in conformity with the CE standards. Please note that this device can ONLY be used with the official E&P Hydraulics level system parts to conform to these standards.

**Table of contents**

Preface .....	1
Chapter 1      Remote control caravan EPRC-02	
1.1      Unpacking the remote control .....	2
1.2      Specific features of the remote control .....	3
1.3      Product labelling .....	5
Chapter 2      Installation	
2.1      Before .....	6
2.2      Programming the remote control .....	7
Chapter 3      Technical specifications .....	8
Chapter 4      Users advices (tips) .....	9

## **Preface**

The E&P Hydraulics Remote control combines the demand for fixed (built in operating unit) and remote controlled operation of the Caravan level system. The ergonomic design ensures effortless handling and the sympathetic good looks will automatically enhance your working environment

It is based on proven E&P Hydraulics technology which forms the basis of all our E&P Hydraulics products. After installation one button operates the entire system.....

Within the E&P Hydraulics strategic vision this products is 100% user friendly and reliable.

This philosophy does not only apply to our customers (end users). The technicians installing this device/system at the dealers are also very important to us. This product greatly depends on a proper, professional installation. That's the reason why E&P Hydraulics do all they can do to support the people who are responsible for installing our products for you.

This manual is part of our policy. In this manual we explain the general features and how to install this product as simply as possible to the hydraulics E&P Hydraulic level system as properly and efficiently as possible.

Precisely follow these instructions for the installation, because installing the E&P Hydraulics system is a precise job. Fully installing the system requires a high level of skill. After all, we are dealing with equipment that must be able to withstand huge forces, something that is often underrated by people with insufficient technical training. If the installation is not performed correctly, serious damages could result in a short time, and even personal injury. Therefore this system may only be installed by professional technicians with sufficient practical experience and a thorough relevant technical training. At all times, the installer will bear sole responsibility for the assembly of the system.

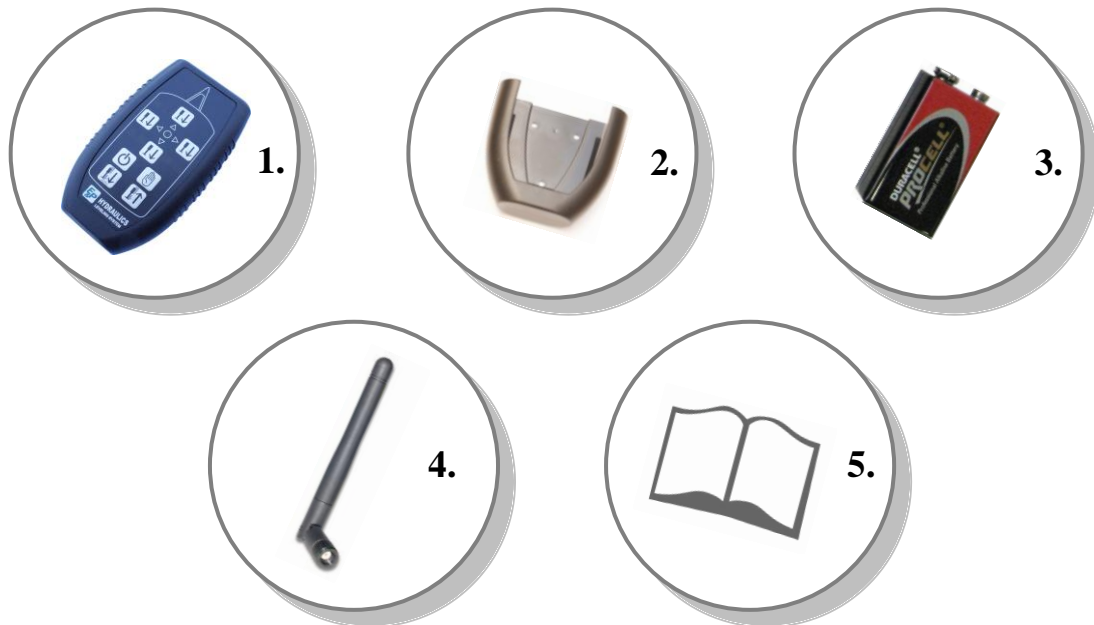
This document is based on hundreds of test hours as well as many successful installations. If you follow this manual step-by-step, you will see what a wonderful, user friendly, quality product this is. However, there will always be aspects that can be improved.

If you have any suggestions, remarks or questions concerning this product or manual, please do not hesitate to contact us.

**On behalf of E&P Hydraulics**

## 1.1 Unpacking the remote control

Remove the remote control and its accessories from the box and packing material. Refer to the packing list to make sure you have received all the items ordered. Visually inspect the remote control and accessories for any evidence of physical damage. Immediately contact E&P Hydraulics if anything appears to be damaged.



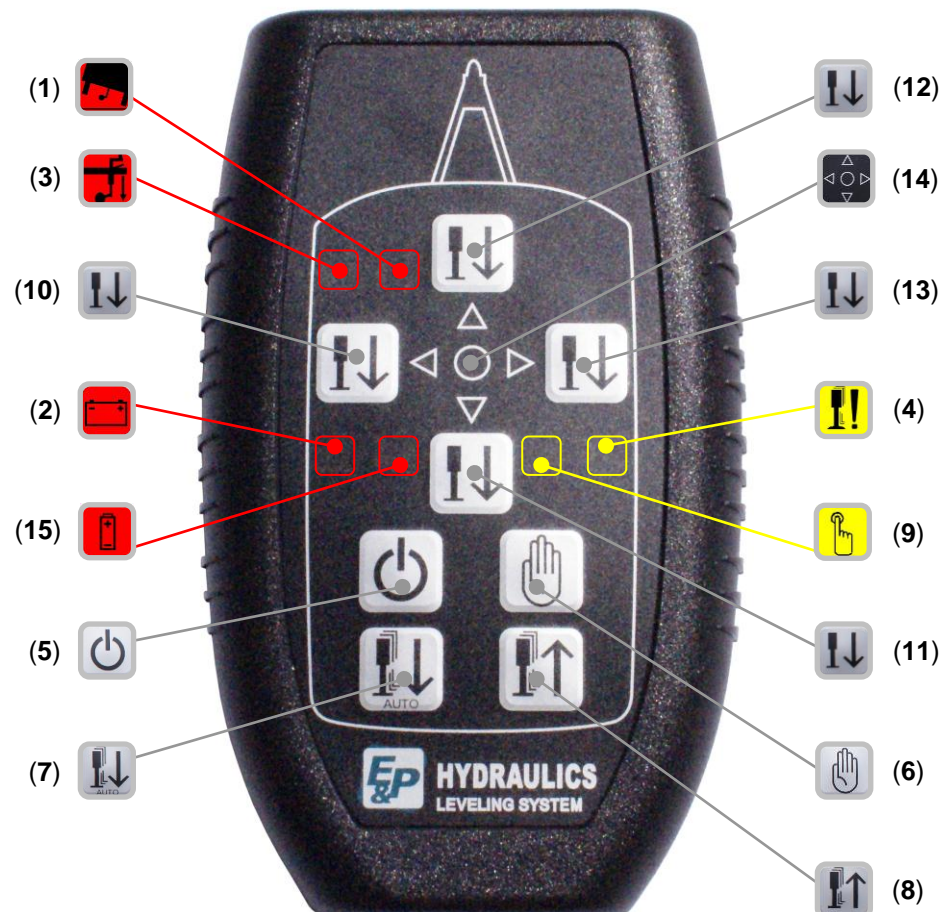
### Contents:

1. Remote control
2. Holder
3. Battery 9V/PP3 (preassembled)
4. Antenna
5. Manual

- Details may differ from the illustration above, but functionality should be identical.
- If the Remote control is delivered as a part of the complete system, this manual can be replaced by the manual belonging to the complete levelling set.

## 1.2 Specific features of the remote control

*Topview remote control caravan*










### EXPLANATION: BUTTONS & LEDS

- |                                   |   |
|-----------------------------------|---|
| (1) LED: slope to steep           | (10) Button: extension supports left-hand-side  |
| (2) LED: battery power            | (11) Button: extension supports rear-side       |
| (3) LED: front wheel              | (12) Button: extension supports front-side      |
| (4) LED: supports not withdrawn   | (13) Button: extension supports right-hand-side |
| (5) Button: ON / OFF              | (14) LED: level indicator                       |
| (6) Button: manual operation      | (15) LED: battery 9V remote control             |
| (7) Button: automatic operation   |   |
| (8) Button: withdraw all supports |   |
| (9) LED: manual operation         |   |

## 1.2 Specific features of the Remote control (continued)









### INDICATOR LEDS

#### EXPLANATION: LEDS

- |      |   |                              |   |
|------|---|------------------------------|---|
| (1)  |    | <b>SLOPE IS TOO STEEP</b>    | In this position the caravan cannot be levelled, as the ground on which it is standing is too uneven. Switch over if necessary to manual control. |
| (2)  |    | <b>INSUFFICIENT VOLTAGE</b>  | The battery has insufficient power. Or the voltage is inadequate to carry out the procedure safely.   |
| (3)  |    | <b>WITHDRAW FRONT WHEEL</b>  | The caravan is too high at the front end, the front wheel must be withdrawn. The LED will go out.   |
| (4)  |    | <b>SUPPORT NOT WITHDRAWN</b> | One or more of the supports extended has not been completely withdrawn.   |
| (9)  |    | <b>MANUAL OPERATION</b>      | Adjusting the caravan to a level position can be carried out manually.  |
| (15) |  | <b>BATTERY 9V - POWER</b>    | Battery power remote control is low.  |
| (14) |  | <b>LEVEL</b>                 | This indicates that the caravan is now positioned horizontally.   |

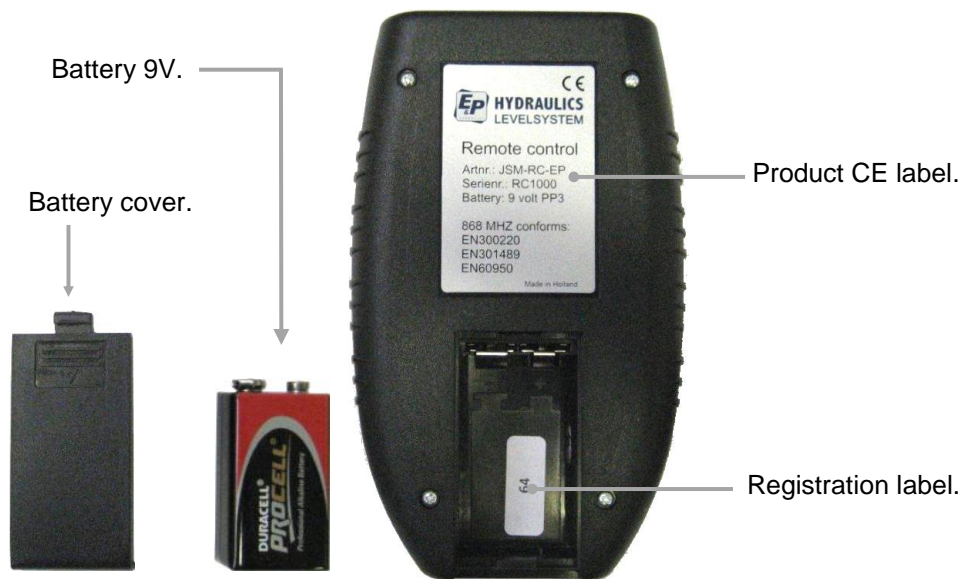
### BUTTONS

#### EXPLANATION: BUTTONS

- |      |   |                              |   |
|------|---|------------------------------|---|
| (5)  |  | <b>ON / OFF</b>              | Switching the system on and off.  |
| (6)  |  | <b>MANUAL OPERATION</b>      | Switching the system in manual mode, levelling the caravan manually.              |
| (7)  |  | <b>AUTOMATIC OPERATION</b>   | Switching the system in automatic mode, levelling the caravan goes automatically. |
| (8)  |  | <b>WITHDRAW ALL SUPPORTS</b> | Withdraw all supports automatically.  |
| (10) |  | <b>LEFT SIDE</b>             | Controls extension of the left-hand-side supports.                                |
| (11) |  | <b>REAR END</b>              | Controls extension of the rear end supports.                                      |
| (12) |  | <b>FRONT END</b>             | Controls extension of the front end supports.                                     |
| (13) |  | <b>RIGHT SIDE</b>            | Controls extension of the right-hand-side supports.                               |

### 1.3 Product labelling

The product CE label is present on the back side of the product as indicated in the illustration below. Another registration label is not directly visible, but is located inside the product, behind the battery cover. All labels are attached by the manufacturer and should not be removed.



For traceability and warranty administration the registration number label is placed inside the product, to be sure it remains undamaged. This official registration number is directly related to the device. E&P Hydraulics or the dealer may ask for this number (e.g. when the product needs to be serviced), so please familiarise yourself with it.

#### Changing battery

Remove the battery cover by firmly pressing, then sliding out and lifting the cover from the casing. Insert the battery and carefully mount the battery cover.



## 2. Installation

### 2.1 Before

The procedure described below has already occurred with your installer/dealer. So you do NOT need to perform this procedure itself.

E&P Hydraulics has chosen to add this additional chapter in this user's guide just in case of failure and or after service/repair.

Consider teaching/programming (pairing) of the remote control as a condition making it possible levelling automatically or manually. When this operation for some reason has not or incompletely been carried out it is not possible to level the caravan.

#### Antenna

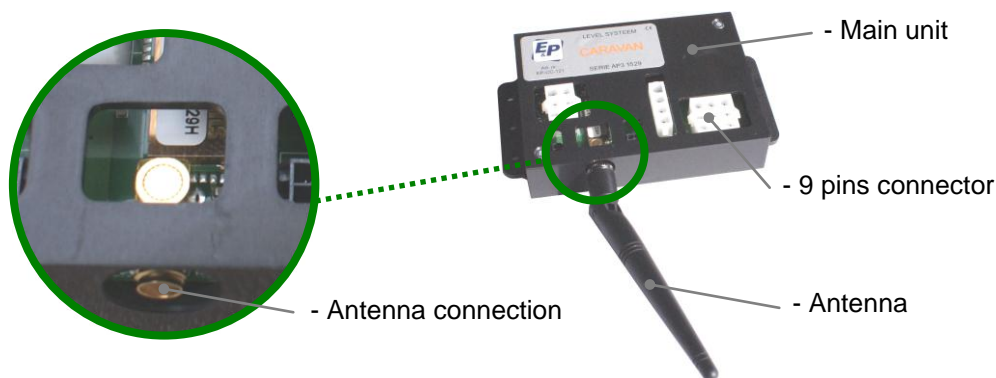
Ensure that a antenna is connected to the main unit (operating system). If this is not the case, the remote control can not communicate with the hydraulic levelsystem.

Basically, the antenna is present when you purchased the E&P Hydraulics levelsystem including the remote control.

Do you have purchased the remote control at a later stage then you must be aware that this antenna connection may be absent from the main unit. (this depends on the acquisition period of the level system)

After 2013, all main units have this antenna connection. In this case, the installer/dealer should mount the antenna (delivered with the remote control) to the main unit.

Extra Note: See also chapter 4 user advices - par. 4.1 Antenna



Before you start the installation procedure of the remote control you must be sure the E&P Hydraulic level system is professionally installed and is functioning correctly.

#### Attention !

Be aware you are dealing with equipment that must be able to withstand huge forces

## 2.2 Remote control programming

**Step 1.** In order to pair the remote control to the system, remove the fuse (30Amp.) out of the cable assembly from the hydraulic level system or disconnect the 9 pins cable connector from the main unit. (do this by gently pressing the two hooks on the side of the connector)



**Step 2.** Press the Buttons “**deploy jacks automatically**” (no. 7) and “**retract all jacks**” (no. 8) **simultaneously** for at least 1 second.



When done the Indicator LED (no. 14) with the surrounding 4 arrows starts blinking GREEN / ORANGE nervously.

This means the remote control is looking for its receiver (mounted within the main unit).

**Step 3.** Depending on what action you performed under step1, reconnect the 9 pin connector or fuse to the system.

**Extra Note!**

**The pairing process should be made within a certain time (apr. 20 sec.)**

- The remote control turns off automatically.
- When the indicator LED goes off the pairing process is guaranteed.



**Step 4.** Turn the remote control ON by pressing button “**on/off**” (no. 5) for at least 1 second.



Now the GREEN LED between the four arrows in the middle will light up by flashing. As long as you see this LED flashing, the Remote control is searching for contact with the Main unit. When contact is made, the flashing stops.

By means of illumination of one or two ORANGE arrows the remote control shows in which way your vehicle is leaning. Or the GREEN LED

This could be  $8 + 1 = 9$  possibilities.



### Using the Remote control:

After programming your remote control, you now have two options to level your caravan: operating your system by the remote control or the (built in) control panel.

The operation is described in the E&P Hydraulics User's Guide of the caravan.

### 3. Specifications

**Electrical:**

Power 9V. PP3 (battery)

**Compatibility:**

868MHz.

EN300220 – EN301489 – EN60950

**Physical:**

Weight (Remote control) 145 Gr.

Weight (Holder) 10 Gr.

**Dimensions:**

Length x Width x Height 140 x 83 x 24 mm.

**Environmental:**

Operating temperature -20°C - 40°C

Humidity 20% - 95% RH (non-condensing)

## 4. Users advices (tips)

### 4.1 Antenna

The main-unit (operating system) and the antenna are build in together with the hydraulic pump in a plastic casing (pumphousing).

At older systems (before 2013) it is likely that the main unit (operating system) is of an older type. To make it possible using the remote control, this older main unit should be replaced by the newest version.

In addition, the cover of the pumphousing also need to be adjusted, in order to make it possible mounting the antenna. (see below)



Situation (old) : before 2013  
Pumhousing view at a main unit  
without antenna connection



Situation (new) : after 2013  
Pumhousing view at a main unit  
with antenna connection

When a caravan level system is mounted/delivered without the use of a remote control, than on the cover of the pumphousing a label with an antenna signal is present. This label covers the hole in the cover due to the absence of the antenna.

### 4.3 Which device takes command

The device which is operated first (remote control or control panel) takes the command to control the system, until that device is switched off.

If you would like to switch from one control device to another, you need to switch off the power from the device that was in operation first.

In the event of switching off the remote control, you have to wait a little time, to give the system enough time to switch off contact between the remote control and the main unit.

### 4.4. Low Battery level indicator

When the battery level indicator LED (16) lights RED, the device does not stop working immediately. After this signal it is possible to use the remote control another 4 times.

Make sure there is a spare battery in the caravan.



**LEVELSYSTEM**

**[www.ep-hydraulics.co.uk](http://www.ep-hydraulics.co.uk)**

Made in Holland

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